

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A carrier head for chemical mechanical polishing of a substrate, comprising:
a base; and
a flexible membrane extending beneath the base to define a chamber and provide a mounting surface against which a substrate may be positioned, wherein the mounting surface holds the substrate and the mounting surface including includes a low adhesive material to which the substrate does not readily adhere.
2. (Currently amended) A carrier head for chemical mechanical polishing of a substrate, comprising:
a base, and
a flexible membrane extending beneath the base to define a chamber, the flexible membrane including a core of a first material and an outer layer of a second material having a lower adhesion to the substrate than the first material, an exposed surface of the outer layer providing a mounting surface for that holds the substrate.
3. (Original) The carrier head of claim 2, wherein the first material is an elastomer and the second material is a polymer.
4. (Currently Amended) The carrier head of claim 2, wherein a thickness of the outer layer is between about 0.4 and 0.7 microns.

5. (Original) The carrier head of claim 2 wherein a coefficient of friction of the mounting surface against the substrate is less than about .5.

6. (Canceled)

7. (Original) The carrier head of claim 2, wherein the second material is deposited on the first material.

8. (Original) The carrier head of claim 7, wherein the second material is deposited on the first material by gas phase polymerization coating.

9. (Currently amended) The carrier head of claim 2, wherein the second material is deposited on selected portions of the first material to form a pattern-first area including the low adhesive material and a second area free of the low adhesive material.

10. (Currently amended) A carrier head for chemical mechanical polishing of a substrate, comprising:

a base; and

a flexible membrane extending beneath the base to define a chamber, the flexible membrane including an inner portion formed of a first material and an outer portion formed of a second material, the outer portion providing a mounting surface against which a substrate may be positioned such that the outer portion holds the substrate, and the second material having a lower adhesion to the substrate than the first material.

11. (Currently amended) A flexible membrane for a carrier head, comprising:

a core of a first material; and

an outer layer of a second material formed over the core, an exposed surface of the outer layer providing a mounting surface for a substrate, wherein the mounting surface holds the

substrate and the second material having has a lower adhesion to the substrate than the first material.

12. (Withdrawn) A method of moving a substrate with a carrier head, comprising:
positioning a substrate against a mounting surface of a flexible membrane of a carrier head, the flexible membrane defining a pressurizable chamber within the carrier head, the flexible membrane including a low adhesion material to which the substrate does not readily adhere;
evacuating the chamber to form a seal between the mounting surface and the substrate;
placing the substrate on a receiving surface; and
pressurizing the chamber to break the seal between the substrate and the mounting surface.

13. (Withdrawn) A method of making a flexible membrane for a carrier head, comprising:

providing a core formed of a first material;
depositing a second material onto the core to form a layer, the layer providing a mounting surface for a substrate, the second material having a lower adhesion to the substrate than the first material.

14. (Withdrawn) The method of claim 13, wherein the providing step includes providing a core formed of an elastomer.

15. (Withdrawn) The method of claim 13, wherein the depositing step includes depositing polymer.

16. (Canceled)

17. (Withdrawn) The method of claim 13, wherein the depositing step forms the layer with a thickness between about 0.4 and 0.7 microns.

18. (Withdrawn) The method of claim 13, wherein the depositing step forms the layer with coefficient of friction against the substrate less than about .5.

19. (Withdrawn) The method of claim 13, wherein the depositing step includes gas phase polymerization coating.

20. (Withdrawn) The method of claim 13, wherein the depositing step forms the layer on selected portions of the first material to form a pattern.

21. (Previously Presented) The flexible membrane of claim 11, wherein the first material is an elastomer and the second material is a polymer.

22. (Previously Presented) The flexible membrane of claim 11, wherein a thickness of the outer layer is between about 0.4 and 0.7 microns.

23. (Previously Presented) The flexible membrane of claim 11, wherein a coefficient of friction of the mounting surface against the substrate is less than about .5.

24. (Previously Presented) The flexible membrane of claim 11, wherein the second material is deposited on the first material.

25. (Currently amended) The flexible membrane of claim 24, wherein the second material is deposited on the first material by gas phase polymerization coating.

26. (Currently amended) The flexible membrane of claim 11, wherein the second material is deposited on selected portions of the first material to form a patternfirst area having the low adhesive material and a second area free of the low adhesive material.

27. (New) The carrier head of claim 1, wherein:

the mounting surface has a surface stickiness that is sufficiently low to allow for unrestrained detachment of the substrate from the flexible membrane in response to pressure changes in the chamber.

28. (New) The carrier head of claim 2, wherein:

the mounting surface has a surface stickiness that is sufficiently low to allow for unrestrained detachment of the substrate from the flexible membrane in response to pressure changes in the chamber.

29. (New) The carrier head of claim 10, wherein:

the mounting surface has a surface stickiness that is sufficiently low to allow for unrestrained detachment of the substrate from the flexible membrane in response to pressure changes in the chamber.

30. (New) The flexible membrane of claim 11, wherein:

the mounting surface has a surface stickiness that is sufficiently low to allow for unrestrained detachment of the substrate from the flexible membrane in response to pressure changes in the chamber.